This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A transit system, comprising:
   a) an elongate guideway, including:
      i. a riding surface, having ~~a~~ functionally interchangeable transit ~~lane~~ and ~~a~~ transition lanes; and
      ii. a plurality of rider access portals, disposed in a side of the guideway, located at a plurality of destination locations;
   b) a plurality of autonomous vehicles, disposed within the guideway, configured for transporting riders, the autonomous vehicles having rider entry doors configured to selectively align with any of the rider access portals and allow the riders to enter the vehicle when the autonomous vehicle stops in the guideway adjacent to one of the rider access portals, the transit lane being configured to accommodate the autonomous vehicles traveling at a transit speed, and the transition lane being oriented substantially parallel to the transit lane and located adjacent to the rider access portals; and
   c) a control system, configured to
      i. automatically direct one of the plurality of autonomous vehicles along the guideway and to enter the transition lane to stop adjacent to a selected one of the rider access portals in response to a request from one of the riders; and
      ii. automatically guide the one autonomous vehicle along the guideway to a destination location selected by the rider.

2. (Cancelled)

3. (Previously Presented) A transit system in accordance with claim 1, wherein the control system is further configured to (i) combine at least some of the autonomous vehicles into controllably linked "trains" of proximate vehicles for travel in the transit lane, and (ii) independently guide the autonomous vehicles to join and detach from the controllably linked

"trains" to allow the autonomous vehicles to travel to independent destination locations.

4. (Original) A transit system in accordance with claim 1, wherein the autonomous vehicles draw motive power from the guideway.

5. (Previously Presented) A transit system in accordance with claim 1, wherein the guideway further comprises vehicle access portals, configured to allow the autonomous vehicles to enter or leave the guideway, and wherein the autonomous vehicles are configured for independent guidance and control by a driver when outside of the guideway.

6. (Currently Amended) A transit systems in accordance with claim 1, further comprising a toll collection system, associated with the control system, whereby a rider can pay a toll for use of the system when requesting one of the plurality of vehicles and designating a destination.

7. (Previously Presented) A transit system in accordance with claim 1, wherein at least some of the destination locations further comprise a rider waiting platform, disposed adjacent to at least one of the rider access portals, and a door at the rider access portal, configured to separate the rider from an interior of the guideway except when one of the autonomous vehicles is stopped at the rider access portal.

8. (Original) A transit system in accordance with claim 7, wherein the rider waiting platform is level with the riding surface of the guideway, and the autonomous vehicles include stairs to allow riders to climb into the vehicles.

9. (Original) A transit system in accordance with claim 7, wherein the rider waiting platform is elevated above the riding surface of the guideway so as to be substantially level with a floor elevation of the autonomous vehicles.

10. (Previously Presented) A transit system in accordance with claim 1, wherein at

least some of the destination locations comprise a rider station, including a rider waiting platform adjacent to at least one of the rider access portals, and a rider information system, configured to convey information to riders regarding the transit system.

11. (Original) A transit system in accordance with claim 10, wherein the rider information system comprises components selected from the group consisting of visual displays, audible broadcasts, and personal messaging systems.

12. (Original) A transit system in accordance with claim 10, further comprising a rider counting system, associated with the rider station, for gauging rider demand.

13. (Original) A transit system in accordance with claim 1, wherein at least a portion of the guideway is substantially enclosed.

14. (Currently Amended) A transit system, comprising;

a) an elongate guideway, having a transit lane and a substantially parallel transition lane, the transit and transition lanes being functionally interchangeable;

b) a plurality of autonomous vehicles, disposed in the guideway and configured to travel therein;

c) a plurality of selectively actuable rider access portals, disposed along the guideway adjacent to a lane of the guideway to be locally and at least temporarily designated as the transition lane, configured to allow ingress and egress of riders to the autonomous vehicles in the guideway; and

d) a control system, configured to automatically guide the autonomous vehicles within the guideway, to allow the autonomous vehicles to transition between the transit lane and the transition lane, and allow each vehicle to travel between origin and destination locations independently selected by a rider, at least some of the origin and destination locations comprising a rider access station, disposed adjacent to at least one of the selectively actuable rider access portals.

15. (Cancelled)

16. (Original) A transit system in accordance with claim 14, wherein the guideway comprises a plurality of pre-fabricated modules disposed end-to-end.

17. (Previously Presented) A transit system in accordance with claim 14, wherein the guideway further comprises vehicle access portals, configured to allow the autonomous vehicles to enter or leave the guideway, and wherein at least some of the vehicles are configured for independent operation and control by a driver outside of the guideway.

18. (Previously Presented) A transit system in accordance with claim 14, wherein the control system is configured to (i) combine at least some of the plurality of autonomous vehicles into controllably linked "trains" of proximate vehicles for travel in the transit lane, and (ii) independently guide the autonomous vehicles to join and detach from the controllably linked "trains" as needed to accommodate selected ones of the autonomous vehicles beginning at independent origin locations, and destined for independent destination locations.

19. (Previously Presented) A transit system in accordance with claim 14, wherein the transition lane is configured to (i) allow the autonomous vehicles to stop at selected rider access portals, and (ii) allow the vehicles to accelerate to or decelerate from a transit speed in a transit direction and wherein the transit lane is configured to accommodate the autonomous vehicles traveling at the transit speed in the transit direction.

20. (Currently Amended) A transit system, comprising:

a) an elongate guideway, including:

   i. a riding surface, having ~~a~~ functionally interchangeable transit ~~lane~~ and ~~a~~ transition lanes; and

   ii. a plurality of rider access portals, disposed in a side of the guideway;

b) a plurality of rider stations, each rider station being located adjacent to at least one of the rider access portals;

c) a plurality of autonomous vehicles, disposed within the guideway, configured for transporting riders between the rider access portals, the autonomous vehicles having rider entry doors configured to align with the rider access portals and to allow the riders to enter one of the autonomous vehicles when the one autonomous vehicle stops in the guideway adjacent to one of the rider access portals;

d) the transit lane being configured to accommodate the autonomous vehicles traveling at a transit speed, and the transition lane being located adjacent to the rider access portals; and

e) a control system, configured to

(i) automatically direct the one of the plurality of the autonomous vehicles along the guideway to a selected rider access portal in response to a request from a rider, and allow the rider to enter therein; and

(ii) automatically guide the one autonomous vehicle along the guideway to a destination location selected by the rider, the control system being enabled to combine the one autonomous vehicle into a controllably linked "train" with at least one other autonomous vehicle for travel in the transit lane, and to cause the one autonomous vehicle to detach from the controllably linked "trains" of autonomous vehicles, and (ii) move to the transition lane to stop at the selected destination.

21. (Previously Presented) A transit system in accordance with claim 20, wherein the guideway further comprises vehicle access portals, configured to allow the autonomous vehicle to enter or leave the guideway, and wherein at least some of the vehicles are configured for independent operation and controlled by a driver outside of the guideway.

22. (Previously Presented) A transit system in accordance with claim 14, further comprising a toll collection system, associated with the control system, configured to allow a rider to pay a toll for use of the system.